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ABSTRACT

Theoretical issues related to the parallel role of internal revision in reading and writing are explored in this paper, which explains that meanings generated during reading or writing are always tentative and that readers and writers must build and maintain a continuous text world. The paper next examines criteria for evaluating the continuity of the text world, and then discusses the various options available to the reader or writer when there are disruptions in the text world. Following that, the paper discusses the transformations that revisions can have on the text world, and concludes by emphasizing the interactive relationship among three components of revision (meanings are evaluated, appropriate responses are examined and selected, and the text is transformed), pointing out that throughout the entire process of generating meaning, the reader or writer must consider the potential for revision from these various perspectives. (EL)

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THE PARALLEL ROLE OF REVISION IN READING AND WRITING

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The Parallel Role of Revision in Reading and Writing

Stephen B. Kucer

During the last several years a number of researchers have begun to investigate the conceptual connections between the processes of reading and writing. One outgrowth of these investigations has been the development of a number of text processing theories which attempt to account for reading and writing behavior within a unified framework (Kucer, 1983, 1985, in press; Pearson & Tierney, 1984; Shanklin, 1982; Spivey, 1983; Tierney, 1983; Tierney & Pearson, 1983). Central to all of these theories, as well as a driving force behind their development, has been the notion that both readers and writers construct cognitive meanings, or what I shall term text worlds, when they interact with print.

Paradoxically, this construction of meaning is as much a process of taking apart as it is a process of putting together. When the reader or writer puts eye or pen to paper, we rarely find a straightforward production of meaning. What is more likely to occur is the generation of thought which soon gets revised or even rejected. The building of the text world is a recursive process and meanings are continually being shaped and reshaped (Baker & Brown, 1984; Beaugrande, 1980, 1984b; van Dijk & Kintsch, 1983; Flower & Hayes, 1981; Graves, 1983; Kintsch & van Dijk, 1978; Murray, 1978; Rumelhart, 1984).

The purpose of this paper is to explore a number of theoretical issues related to the parallel role of internal revision in reading and writing. I begin with a brief overview of the general nature of revision and some of the conditions which make it an inherent part of all reading and writing. I then set forth a criteria by which readers and writers evaluate their worlds

of meaning for possible revision. Finally, because inherent to revision is the process rebuilding, I conclude with an examination of the kinds of transformations which may occur in the text world when revision is initiated.

The Hypothetical and Dynamic Nature of Text World Production

As has already been implied, the meanings generated during reading or writing are always tentative or provisional. In large part this is due to the dynamic nature of the text world. The text world is always changing, always being transformed by the addition of new information (Beaugrande, 1979; Langer, 1985a, 1985b). Each idea which is accepted at the point of utterance, therefore, only represents the individual's best guess or prediction at that particular time. As new meanings are evolved, they frequently produce a shift in perspective on the part of the reader or writer and a corresponding change in the significance of previous meanings.

If the continuity or consistency of the text world is to be maintained in face of such transformations, the individual must shuttle back and forth between past and present meanings. The individual must constantly appraise the acceptability of previous ideas from new vantage points and in response to an ever changing context. In effect, hypothesized meanings must always be tested against new data.

Continuity building also requires the reader or writer to look ahead. All text processing involves the anticipation of future or potential ideas to be encountered, at least in a general form. Not only must previous and evolving meanings be continuous with one another but they must also offer potential links to meanings yet to come. As meanings are developed, they need to be judged in light of the future.

In summary, what the individual faces when reading or writing is the

building and maintenance of continuity among three worlds of meaning. As I have attempted to illustrate in Figure 1, there are those meanings which have been confirmed or judged as acceptable, if only temporarily. There are also those meanings at the point of utterance, meanings being formulated at any given point in time during text processing. Finally, there is the world of meaning which the individual only anticipates. Because there is a symbiotic relationship among these three worlds of meaning, the building and maintenance of a continuous text world demands that both the reader and writer "look ahead" as well as "back" when evaluating any unit of meaning.

Figure 1 about here.

It is precisely at those points where continuity is disrupted that revision is required. As the addition of new information takes the text world down unexpected paths, the reader or writer will need to backtrack and update previous meanings. In addition, predicted meanings may also need to be modified in light of the new environment. Such revision, however, is not a unique stage, nor is it an end of the line repair (Beaugrande, 1984a; Sommers, 1978, 1980). Rather, the updating and modification of meaning permeates reading and writing and results in a series of text world approximations before the final product is realized.

Criteria for Evaluating the Continuity of the Text World

Up until now the evaluation and revision of the text world has been discussed in terms of continuity. That is, in terms of the degree to which

meanings conform to what has come, what is now, and what is yet to be. The question must be asked, however, as to what exactly makes a text world continuous? What criteria do readers and writers employ to judge the continuity of their meanings? This issue is complicated by the fact that the meanings in a text world play a number of roles and must therefore be judged from a number of perspectives.

Beaugrande (1980, 1984b), in an attempt to push the study of language beyond the sentence level, has proposed several characteristics by which texts and non-texts can be distinguished. In a modified form, these characteristics, which are listed in Figure 1, can also provide the criteria by which readers and writers evaluate their meanings for acceptability. I should note here that the application of each criterion cannot be done in isolation from the others. The same symbiotic relationship which exists among all meanings in the text world also exists among the criteria.

The first criterion for assessing continuity is that of logic or sensibility. Meanings throughout the text world must be logical; they must make sense in and of themselves. In making this judgement, the individual relies on an external source, that of prior knowledge, as the base for evaluation. Meanings need to conform or correspond to what is known about the world in general and about the topic in particular.

In addition to being externally logical, meanings must also be internally coherent on both a global and local level (van Dijk, 1980; van Dijk & Kintsch, 1983). Each idea should be conceptually linked to those around it and also relate, at least indirectly, to all other meanings in the text world. The meanings created during reading or writing must form a unified and noncontradictory whole.

Intentionality is the third criterion by which continuity is judged.

Reading and writing are functional processes, they are used to accomplish things in the world. As such, text processing is always goal and planned oriented (Bruce, 1980; Cooper, 1982; Meyer, 1982; Morgan & Green, 1980; Pratt, 1977). If meanings in the text world are to be acceptable, they must reflect the purpose which drives the individual to read or write.

Directly related to the criterion of intentionality is that of situationality. Goals and plans do not emerge in a vacuum, but rather are situationally based. It is a communicative context which first provides the initiative for the individual to engage in reading or writing. In fact, Halliday (1974, 1978; Halliday & Hasan, 1980) has proposed that the meanings in any text always contain elements of the context from which they were generated. Therefore, the text world must be relevant to the current or a recoverable situation.

Finally, the continuity of the text world is judged in terms of its intertextuality. Just as the meanings which a reader or writer creates must relate to a relevant situation, so too must they relate to previously encountered texts. No world of meaning stands alone and both its content and form must display features found in other texts. The text world must be linked to an existing text type, such as narration or exposition. In addition, it must reflect an organizational pattern, such as time-order, antecedent/consequent, or comparison/contrast, which is acceptable within the particular text type (Gordon & Braun, 1982; Meyer, 1982).

Blocks to Text World Continuity: Possible Responses

When a portion of the text world is viewed as a potential block to continuity, the reader or writer is faced the dilemma of deciding how and when the block can best be handled. This involves a process of setting and

varying thresholds for acceptability. For example, in any literacy task the individual must decide the degree to which meanings are to be coherent, as well as when such coherence should be attained. The problem is that if the threshold is set too high, there is always the potential for endless revision; if it is set too low, coherence may not be developed to its fullest. In addition, if the reader or writer feels compelled to immediately repair any violation to coherence, the ongoing development of the text world will be constantly disrupted. On the otherhand, to delay revision may cause the text world to wander aimlessly. The individual must therefore be willing to vary threshold levels at different points during reading or writing and at the same time be flexible as to when revision is initiated.

The extent to which the individual will need to vary thresholds and engage in revision is directly related to the degree of uncertainty involved in the reading or writing task (Langer, 1984; Rumelhart, 1980). Tasks which require little accommodation in the individual's existing frameworks of knowledge frequently demand less revision than those which require heavy amounts of accommodation. When the individual has much of the necessary background knowledge and it is organized in an appropriate manner, reading or writing is fairly predictable and more easily managed. However, when prior knowledge is less developed or in a form at variance from the demands of the task, extensive accommodation will be required. Under these conditions the potential for discovery is enhanced and the potential for greater amounts of revision is increased. Through the very process of reading or writing the individual adapts prior knowledge to the task at hand and comes to see what was not previously seen.

In Figure 2 I have listed the various options available to the reader or writer when there are disruptions in the text world (Collins & Smith,

1982; Sommers, 1978, 1980). The easiest response, though not always most productive, is to simply ignore the problem. In such cases, the individual is either unable or unwilling to make the necessary revisions and lowers the threshold for acceptability. A less drastic and usually more constructive option is for the reader or writer to suspend judgement until more of the text world has been developed. Under these conditions, rather than ignoring the problem, the individual puts the evaluation "on hold," continues the generation of meaning, and hopes that the problem will take care of itself.

Figure 2 about here.

A third possibility is for the reader or writer to temporarily lower the threshold for acceptability, confirm those meanings which have been generated, and then to schedule revision at a later point in time. The individual is aware that a problem exists, that there is a weak spot in the text world, but decides to tentatively accept the meanings so not to halt the ongoing development of meaning. This temporary lowering of thresholds frequently happens when there is a strain on the cognitive resources available to the reader or writer. When demands are low, the individual is usually capable of engaging in a number of parallel processes. However, as demands increase, a point may be reached at which the cognitive resources are overwhelmed. In order to assure the continuity of the text world, the individual will need to focus attention of those demands which are most global in nature, on those demands which are critical to the overall text world (van Dijk & Kintsch, 1983). At the same time, because parts of the

text world will break down due to this narrowing of focus, the individual will also need to schedule time to return and make the necessary repairs.

There will be times, however, when meanings are so disruptive to both the existing text world and its ongoing development that revision must be initiated immediately. The individual will reread, rewrite, or rethink so as to repair the break in continuity. Again, such revisions are usually in response to more global violations of continuity.

The last two options available to the reader or writer are to seek assistance or to simply cease reading or writing altogether. The individual may ask others to help in maintaining the continuity of meaning or decide that the disruption is so damaging that there is little hope of developing an acceptable text world.

Transforming the Text World Through Revision

There are six possible transformations which revision can have on the text world (van Dijk, 1980; Sommers, 1978, 1980). These transformations, which are listed in Figure 2, can result in the fine tuning of the text world or in wholesale changes. It should once again be stated that we are talking about transformations in cognitive meanings, not necessarily changes in the surface structure of the text. Many revisions in the text world involve only rethinking and may never be made visible through the process of rereading or rewriting.

The first possible transformation is that of deletion. Meanings may be removed from the individual's world of meaning because they do not contribute to continuity. New meanings may also be added to, or substituted for, existing meanings. At other times, revision involves not so much a process of adding or taking away as it does the reconstruction or recombination of

existing ideas. In this type of revision a number of individual units of meaning are synthesized to form a unified whole. At other times the reader or writer may maintain the existing ideas, but decide to structure them in a pattern at variance from the original. This results in a permutation of meaning in the text world. Finally, revision can produce a level shift in the arrangement of meanings. Meanings prominent or high in the text world structure are downgraded or meanings of less importance or low in the structure are upgraded. In such revision there is a change in the significance of individual units of meaning in relation to the overall text world.

Conclusions: Revision as an Interactive Process

For ease of presentation, the process of revision has been discussed in fairly linear terms, i.e. meanings are evaluated, appropriate responses are examined and selected, and the text world is transformed. In actuality, a much more interactive relationship exists among these three components of revision. Readers or writers seldom set thresholds for evaluating their meanings in isolation. Before a threshold is determined the individual must consider both how and when the potential block to continuity will be repaired. Additionally, the effects of revision on the existing text world and its future must also be considered. The degree to which any unit of meaning contributes to continuity of the text world largely depends on the support of the other meanings in the text world. Therefore, an individual revision in one part of the text world frequently demands corresponding changes in other parts (Adams & Collins, 1977; Monahan, 1984; Rumelhart, 1977). Throughout the entire process of generating meaning, the reader or writer must consider the potential for revision from from these various

perspectives and then act accordingly.

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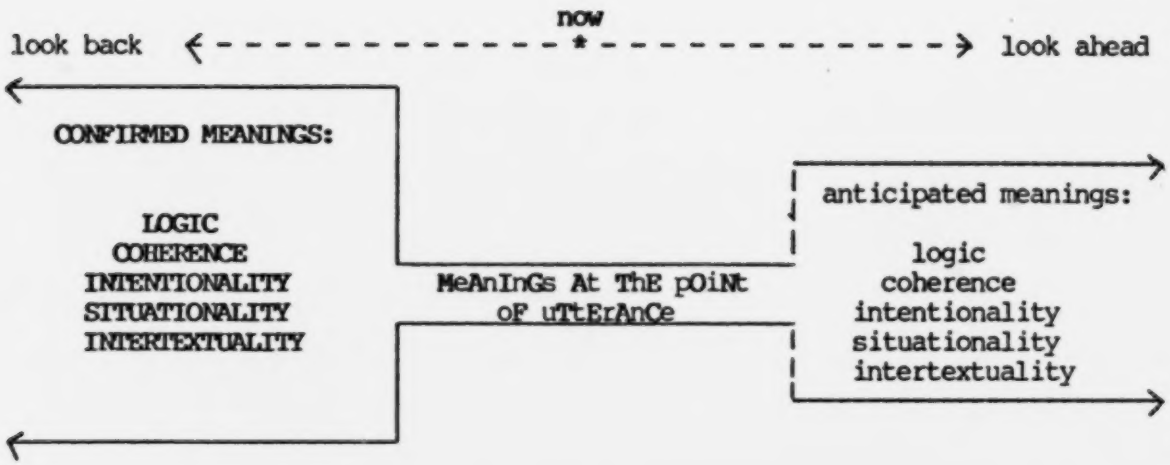

Figure 1. Continuity building in reading and writing.

DISCONFIRMING TEXT WORLD CONTINUITY:	TEXT WORLD TRANSFORMATIONS:
ignore	deletion
suspend judgement	addition
weak spots	substitution
generate alternatives	recombination
seek assistance	permutation
stop processing	level shift

Figure 2. Disconfirming and transforming the text world in reading and writing.